



**Maine Department of Health and Human Services
Maine Center for Disease Control and Prevention**

2006 Report on Maine Teen and Young Adult Sexual Health



**Kathryn F. Brown
Nancy Birkhimer, MPH
Erika Lichter, ScD
September 2006**

Executive Summary

Although teen pregnancy, birth, and abortion rates in Maine are much lower than national rates, teens and young adults face health risks associated with sexual behaviors. The goal of this report is to provide recent data on sexual health among teens and young adults in the state of Maine in order to aid future prevention efforts.

Teen Pregnancies and Births in Maine - 2004

- Maine has the fifth lowest teen birth rate among females 15-19 years in the United States.
- Teen pregnancy, birth, and abortion rates have consistently declined, and teen pregnancy rates have declined 45% in the last twenty years and 27% in the last ten.
- Teen pregnancy rates are highest among females 18-19 years.

Teen Pregnancies by Race/Ethnicity (aggregated data: 2000-2004)

- American Indians have the highest teen pregnancy rate of all races.
- Hispanic teens have higher pregnancy rates than Non-Hispanic teens.
- The disparities in teen pregnancy rates have not decreased over time

Teen Births in 2004: An Unintended Consequence

- 77% of births to teens less than 20 years were unintended.

Youth Risk Behavior Survey: Teens' Sexual Behavior in 2005

- 45% of Maine high school students have ever had sex.
- 34% of students reported being "sexually active" (defined as having had sex in the last three months).
- 8% of Maine students were forced to have sex against their will.
- 26% of sexually active students reported drinking or using drugs at last sexual intercourse.
- Nearly 60% of sexually active Maine students reported using a condom at last sexual intercourse.
- Nearly 40% of sexually active students and almost one-half (48%) of sexually active females reported using a hormonal contraceptive to prevent pregnancy.
- 55% of students reported talking to a parent or guardian about sex within the last six months.
- 16% of sexually active students reported using withdrawal or no method of birth control when asked how they prevented pregnancy at last sexual intercourse.

Sexually Transmitted Diseases: Teens & Young Adults

- In the last ten years, the rates of chlamydia and gonorrhea diagnoses among teens and young adults have more than doubled.
- In 2005, chlamydia and gonorrhea rates were highest among females 20-24 years.
- An estimated 1,100 people are living in Maine with diagnosed HIV infection, and roughly 10% of those diagnosed with HIV are less than 25 years of age. An additional 350-450 individuals may be infected without knowing it.

Introduction

Sexuality is a basic element of human life, important for health, happiness, individual development, and for the continuation of humanity. As adolescents transition from childhood to adulthood, their relationships become more complicated and sexual.

Teenagers and young adults enter into sexual relationships in order to gain intimacy, social status, and sexual pleasure.¹ In 2005, forty-seven percent of teens in the United States have ever had sex.² However, adolescents often lack the maturity and knowledge necessary to enter into a sexual relationship. Engaging in sexual activity at a young age increases the risk for many negative consequences, including an unintended pregnancy or the contraction of a sexually transmitted disease.

The U.S. has the highest teen pregnancy rate of any developed nation.³ It is estimated that one-third of adolescents in the U.S. become pregnant before they reach twenty years of age.⁴ Teenage pregnancy rates are thought to be higher in the U.S. because of earlier sexual activity and less frequent contraceptive use among teens.⁵

Furthermore, teen pregnancy is a major public health concern in the U.S., especially since almost all (88%) of teen births are unintended.⁶ Teen mothers are less likely to receive a high school diploma, more likely to live in poverty, and are typically single parents.^{7,8} They have higher rates of pre-term labor and frequently deliver low birth weight babies.⁹ These babies often have more developmental delays and higher infant mortality rates.¹⁰ The children of teen mothers often experience worse health outcomes, lower educational attainment, and higher rates of adolescent childbearing compared to children of non-teen mothers.¹¹ Additionally, the effects of teen pregnancy concern more than just the mother and child. Cost studies have found a wide disparity between the enormous social costs of teen births and the relatively small amount of money invested in programs aimed at preventing teenage pregnancy.¹²

Teen pregnancy rates in Maine are much lower than the national average, yet Maine's rates are still much higher than other developed countries. However, the State strives to reduce rates even further to ensure the health and future of Maine teens, young adults, and the State as a whole. The goal of this report is to provide recent data on sexual health among teens and young adults in the state of Maine in order to aid future prevention efforts.

Teen Pregnancies and Births: Related Facts and Figures

Table 1.1: Teen Birth Rankings in the United States – 2004 Rates per 1,000 Females, Ages 15-19					
US Total	41.6 / 1000				
States with Lowest Rates	Rate	Rank	States with Highest Rates	Rate	Rank
New Hampshire	18.2	1	Arizona	60.1	46
Vermont	20.9	2	Arkansas	60.3	47
Massachusetts	22.3	3	New Mexico	60.8	48
New Jersey	24.1	4	Mississippi	61.9	49
Maine	24.3	5	Texas	62.6	50

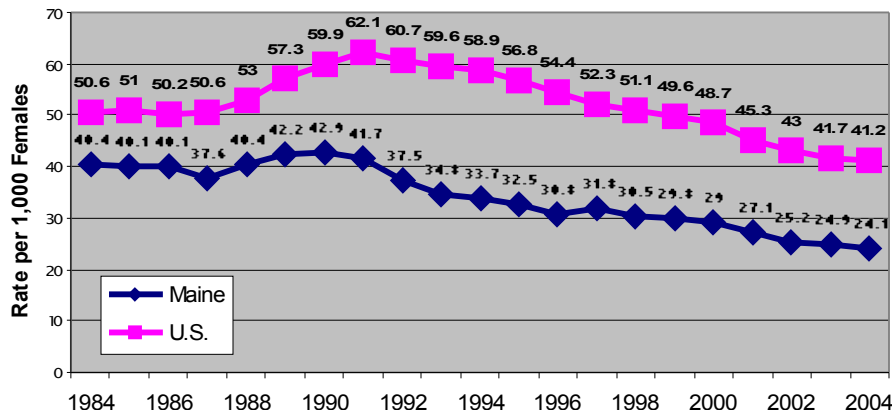
Source: Martin JA, Hamilton BE, Sutton PD, et al. Births: final data for 2004. National Vital Stat Rep 2006;55(1).

Trends in Teen Births

Data on teen pregnancies and births in Maine are obtained from Maine birth certificates. Births occurring outside of Maine to women who reside in the state are not included.

Maine has the 5th lowest teen birth rate in the United States. Over the last ten years, teen birth rates in Maine have consistently been approximately 60% lower than U.S. rates. There was an increase in Maine and U.S. teen birth rates during the late 1980's and early 1990's, but the rates have declined ever since. Both rates decreased substantially after a high in 1991. Studies attribute this decline to more effective contraceptive use and more frequent delays in sexual activity.¹³

**Figure 1.1: Births Among Adolescent Females
Ages 15-19
Maine and U.S. 1984-2004**



Sources: Maine Data: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research and Vital Statistics. National Data: Centers for Disease Control, National Center for Health Statistics, US Vital Statistics.

Teen Pregnancy

**Figure 1.2: Maine Teen Pregnancy Outcomes
Ages 15-19
1984-2004**

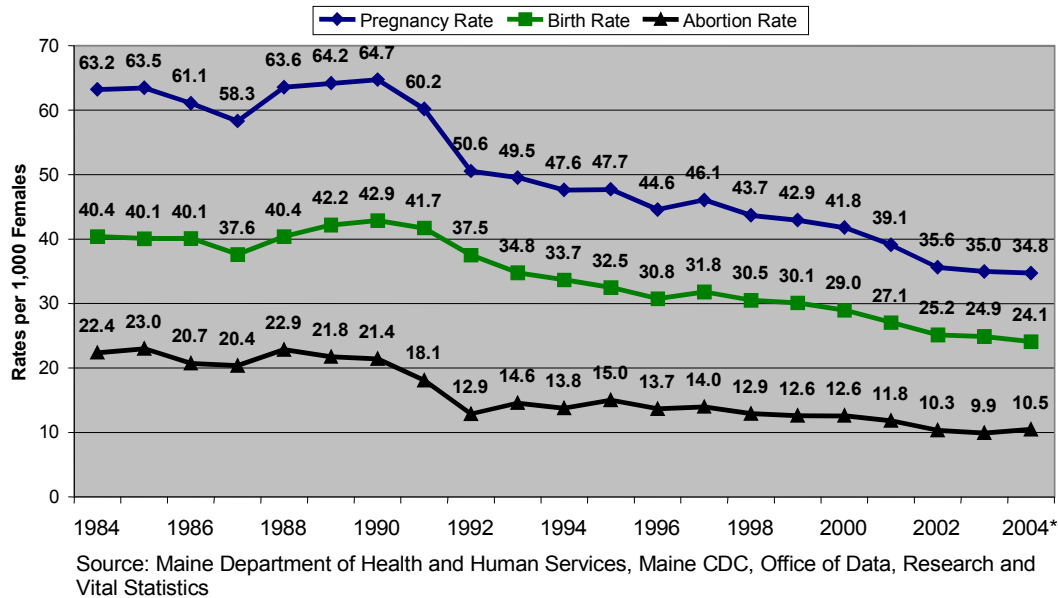


Table 1.2: 2004 Maine County Level Counts and Rates of Teen Pregnancies for Females, Ages 15-19 *

County	Counts	Rates per 1,000
Knox	58	48.5
Somerset	85	47.2
Piscataquis	26	46.8
Waldo	58	45.8
Androscoggin	175	45.0
Lincoln	42	40.5
Sagadahoc	48	39.7
Oxford	72	37.9
Kennebec	163	36.6
Maine Overall	1587	34.8
Cumberland	284	31.9
Washington	39	31.7
York	202	31.0
Penobscot	185	30.8
Aroostook	70	27.3
Hancock	46	26.6
Franklin	34	24.3

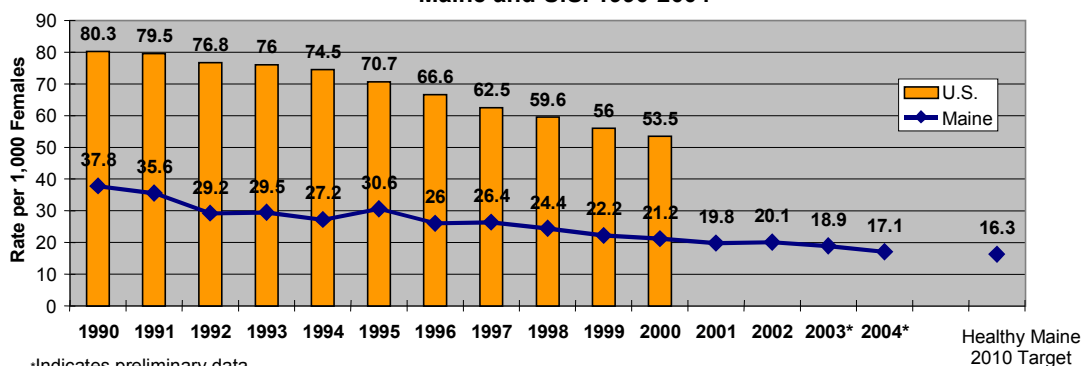
Source: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics.

*Data are less reliable in counties with smaller population sizes and counts of teen pregnancies. Population sizes in all counties are greater than 500.

The teen pregnancy rate in Maine reflects a decrease in both birth and abortion rates. Teen pregnancies are calculated by adding the total number of live births, induced abortions, and fetal deaths (up to twenty weeks of gestation) among females ages 15-19 years. As depicted in Figure 1.2, **between 1984 and 2004, there was a 45% decrease in pregnancy rates among teens 15-19 years and a 27% decrease in the last ten years.**

In 2004, teen pregnancy rates among Maine females 15-19 years were the highest in Knox and Somerset counties. The lowest rates were in Hancock and Franklin counties. (See Table 1.2)

**Figure 1.3: Pregnancies Among Adolescent Females
Ages 15-17
Maine and U.S. 1990-2004**



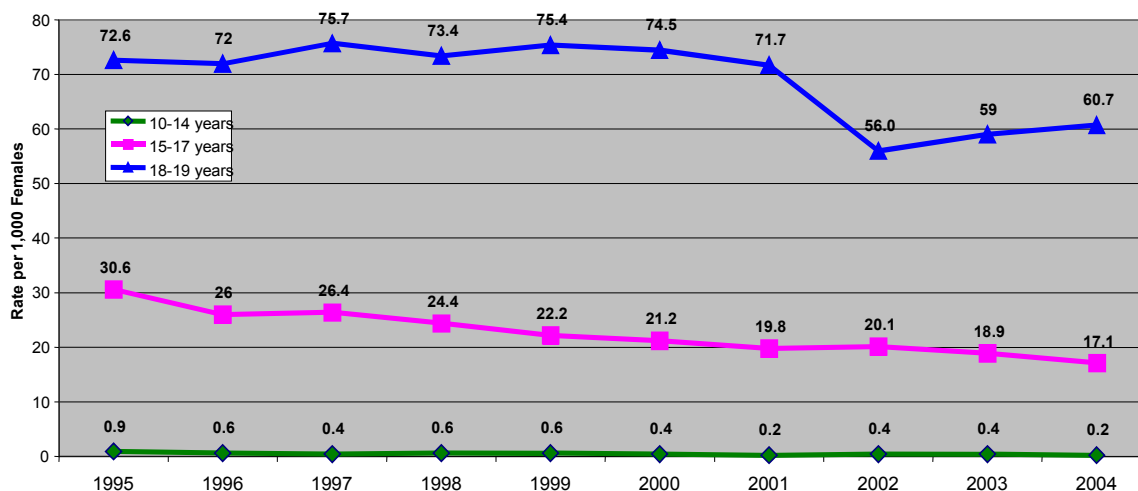
*Indicates preliminary data.

Sources: Maine Data: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics. National Data: Centers for Disease Control, National Center for Health Statistics, US Vital Statistics.

Mirroring Healthy People 2010, one goal of Healthy Maine 2010 is to reduce pregnancies among younger adolescent females 15-17 years. **In order to meet Healthy Maine 2010 objectives, teen pregnancy rates among females 15-17 years must decrease approximately 5% over the next 6 years.** As exhibited in Figure 1.3, rates have fallen since 1990, and if the rates continue to follow the same trend, the Healthy Maine target will be met.

Figure 1.4 displays the differences in teen pregnancy rates over ten years among teens 10-14, 15-17, and 18-19 years. Pregnancy rates among teens of all ages fell after 1995. The highest teen pregnancy rates were among females 18-19 years. Between 2002 and 2004, teen pregnancy rates among females 18-19 years increased 8%, but between 1995 and 2004, the rates decreased 15% overall.

**Figure 1.4: Pregnancies Among Adolescent
Ages 10-14, 15-17, and 18-19
Maine 1995-2004**



Source: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics.

Teen Pregnancy by Race/Ethnicity

Table 1.3: 2000-2004 Aggregated Teen Pregnancies by Teen Mothers' Race and Ethnicity, Ages 15-19		
Race	Rates per 1,000 Females	Counts
White	35.7	1538
Black	65.3	27
Am. Indian	96.1	35
Asian/Pacific Isl.	34.7	17
Total	37.2	1672
Ethnicity	Rates per 1,000 Females	Counts
Hispanic	44.0	23
Non-Hispanic	34.5	1532
Total	37.2	1672
Source: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics.		

Table 1.3 compares teen pregnancy rates and counts by race and Hispanic ethnicity. Note that the rates and counts were combined and averaged over five years. Since the minority population in Maine is very small, it is necessary to combine years in order to stabilize the rates and counts. Also, those who answered “unknown” or “other” as a race or ethnicity are included in the total rates and counts but are not exhibited in the table due to small numbers.

In 2005, approximately 97% of Maine’s population was white, but Maine’s minority population is growing rapidly. Between 2000 and 2005, the black population increased by 47%, the population of those indicating Hispanic ethnicity increased by

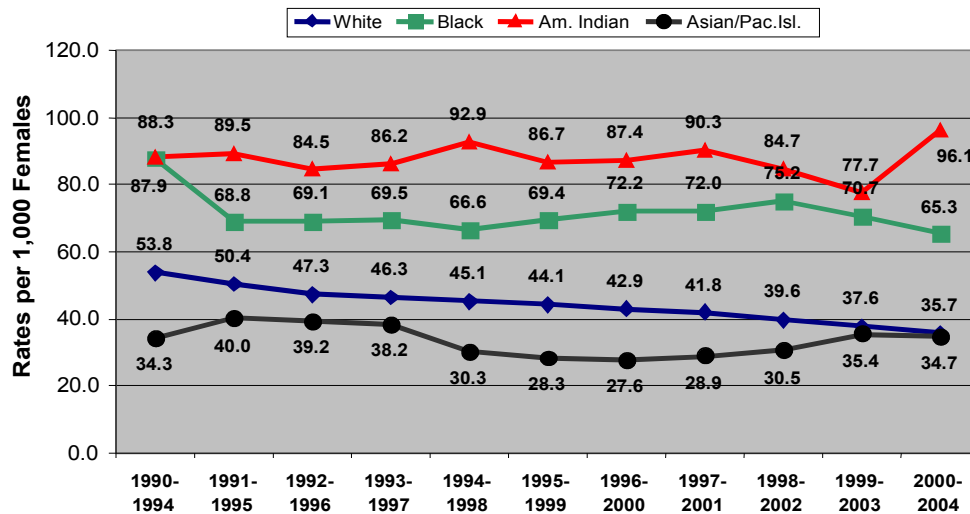
34%, and the Asian and Pacific Islander populations increased by almost 20% (19.6% & 19.1%, respectively).¹⁴

Many minorities face increased health risks. Even though Maine’s minority population is small, research within other states reveal that health disparities exist between races. Table 1.3 demonstrates that health disparities also exist between the races in Maine, as **American Indians and African-Americans had the highest teen pregnancy rates**. Also, teen pregnancy rates among Hispanic teens were higher than those who identified themselves as Non-Hispanic.

Trend data show that while white and non-Hispanic teen pregnancy rates have steadily decreased, minority teen pregnancy rates have not shown the same consistent decline. This has resulted in a disparity that is increasing in Maine. The 5-year average teen pregnancy rate among American Indians has not decreased over time, but remained fairly consistent between 1990-1994 and 1999-2003. Recent data suggest the rate may actually be increasing (Figure 1.5); Maine’s American Indian teen pregnancy rate for 2000-2004 was more than 2.5 times higher than average state rate. It is unclear whether this increase will continue in future years.

The average African-American teen pregnancy rate consistently increased over time between 1991-1995 and 1998-2002 (Figure 1.5) from 68.8 per 1,000 to 75.2 per 1,000 in 1998-2002. Recent data suggest that the rate may be declining. The 2000-2004 5-year adolescent pregnancy rate for African-Americans in Maine was 65.3 per 1,000, the lowest it has been since 1990.

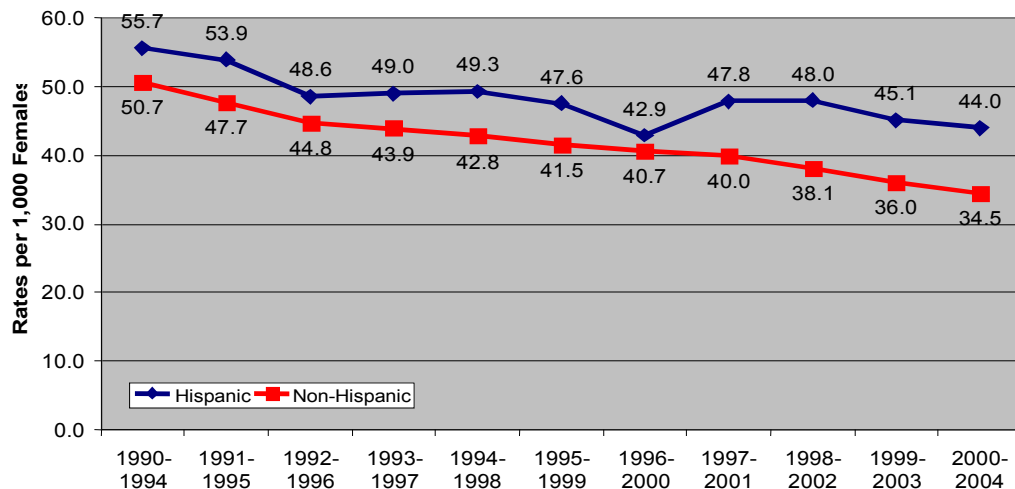
Figure 1.5: 5 Year Average Pregnancy Rates by Teen Mother's Race, Ages 15-19, Maine 1990-2004



Source: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics.

The 5-year average adolescent pregnancy rate for Hispanics has been consistently higher than non-Hispanics since 1990, but it declined over time in a similar fashion to the non-Hispanic rate to a low of 42.9 per 1,000 in 1996-2000 (Figure 1.6). Since this time, however, the adolescent pregnancy rate among non-Hispanics continued to sharply decline, while the Hispanic rate increased. The most recent available data reveal that the average Hispanic teen pregnancy rate is currently 20% higher than the non-Hispanic rate. Although the teen pregnancy rate among Hispanics appears to be decreasing, the gap between Hispanics and non-Hispanics is not decreasing.

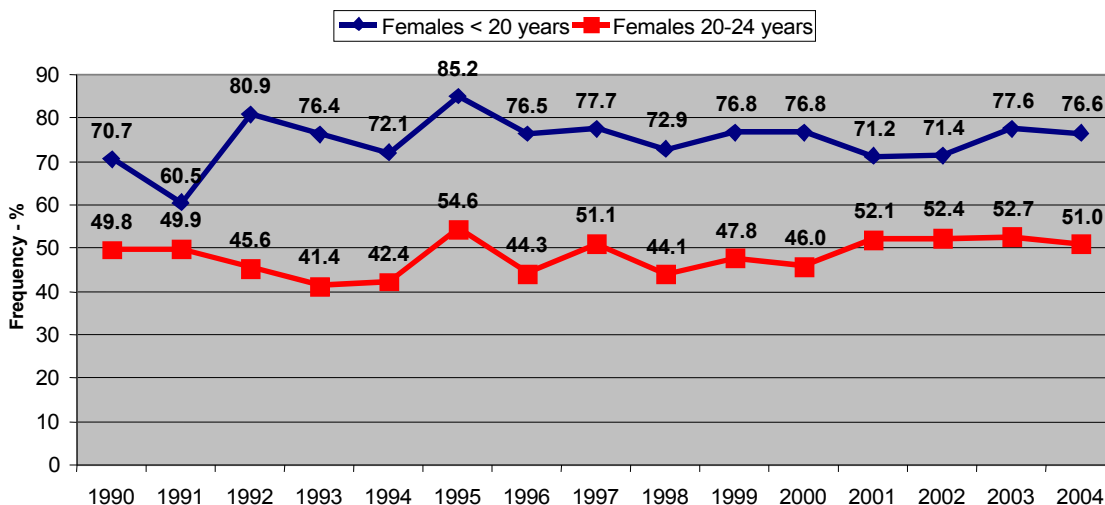
Figure 1.6: 5-Year Average Pregnancy Rates by Hispanic Ancestry, Ages 15-19, 1990-2004



Source: Maine Department of Health and Human Services, Maine CDC, Office of Data, Research, and Vital Statistics.

Unintended Births

Figure 1.7: Unintended Births Among Maine Female Adolescents and Young Adults



Source: Pregnancy Risk Assessment Monitoring System, Maine Department of Health and Human Services, Maine CDC, Office of Research, Data, and Vital Statistics.

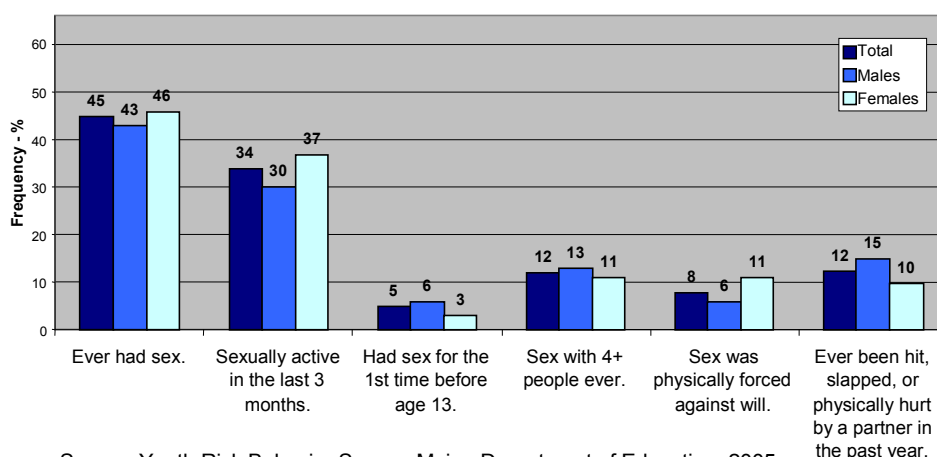
An unintended pregnancy or birth is one where the mother states that she preferred to become pregnant later or that she did not want to become pregnant then or any time in the future. Data are not readily available for the proportion of unintended *pregnancies* in Maine. Data on unintended *births* are obtained from a statewide survey given to new mothers: the Pregnancy Risk Assessment Monitoring System (PRAMS). Data from PRAMS allow the state to identify and observe maternal behaviors and experiences throughout pregnancy among women who have just given birth to a live infant.¹⁵ Figure 1.7 displays the frequency of unintended births in Maine among teens and young adults and demonstrates that births are more likely to be unintended among younger females. **In 2004, nearly 8 in 10 (76.6%) Maine teenage mothers reported that their pregnancy and subsequent birth was unintended.**

Furthermore, unintended *pregnancies* are more likely to end in abortion, as it is assumed that most pregnancies ending in abortion are unintended, although a small proportion are terminated because of health reasons or the loss of a partner.^{16, 17} Unintended pregnancies are also associated with an increased risk of morbidity.¹⁸ Approximately one-half of *all* pregnancies and more than 8 in 10 teenage pregnancies are unintended in the United States.^{19, 20}

Youth Risk Behavior Survey: Teens' Sexual Behaviors

The prevention of teenage pregnancies and births is dependent upon either an increase in abstinence or an increase in contraceptive use among those who are sexually active. The Youth Risk Behavior Survey provides state and national data on these as well as other behaviors that affect adolescent health.²¹ Maine high school and middle school students take the survey every two years. Teenagers not enrolled in Maine's high schools are not included in the survey; many of these teenagers could be considered "high risk" teens, but their behaviors are not captured in the YRBS data and are therefore not presented in this report. Data on Maine high school students (grades 9-12) from 2005 are presented in this report, except where noted.

Figure 2.1: Sex and Behavior Among Maine High School Students



Source: Youth Risk Behavior Survey, Maine Department of Education, 2005.

In 2005, 45% of Maine high school students had sexual intercourse, and more than one-third (34%) of students were sexually active (defined here as having had sex within the three months preceding the survey). Five percent of students had sex before their 13th birthday.

More than one in ten (12%) students reportedly had 4 or more sexual partners. Teens having multiple sexual partners and experiencing earlier sexual activity are at an increased risk for unprotected sex and the contraction of a sexually transmitted disease (STD).²²

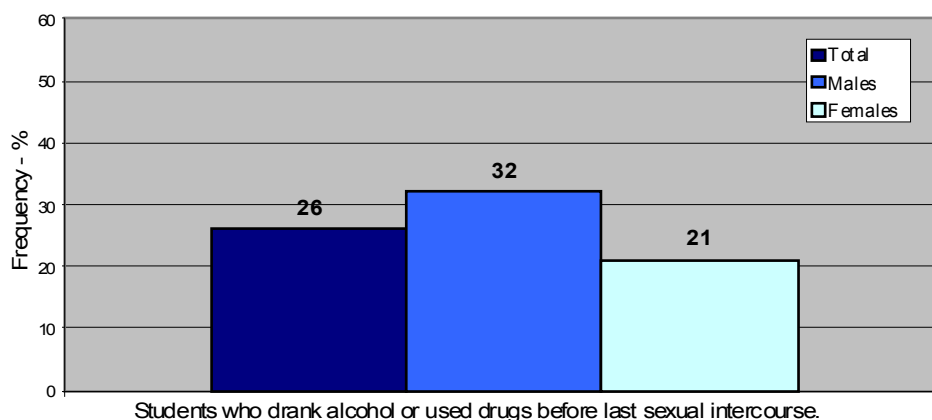
Eight percent of Maine high school students were forced to have sex against their will, including one in nine girls. About one-quarter (27%) of all students who were forced to have sex had sex for the 1st time before the age of thirteen. Thus, the majority (63%) of students forced to have sex were older than thirteen at the time of the event, suggesting that many could be victims of date rape. There is no information in the survey on the age at which the incident occurred or the age of the perpetrator. However, sexual abuse at any age is often linked with risky sexual behaviors among adolescents.^{23, 24}

Additionally, forced sexual intercourse often correlates with having multiple recent sexual partners.²⁵ More than one in three (38%) high school students forced to have sex also had 4 or more sexual partners in their lifetime, compared to 10% of students who had not been forced to have sex.

The 2005 YRBS revealed that 12% of Maine high school students were hit, slapped, or physically hurt by a partner within the last 12 months. About 15% of males reported being hit by a partner, compared to about 10% of girls.

Girls frequently perceive experiences of dating violence as serious assaults, which have greater physical and psychological effects, whereas males often do not consider an incidence of dating violence as damaging.²⁶ Girls typically inflict violence onto boys as a form of self-defense.²⁷ Intimate relationships where physical and sexual abuse is present places women at a greater risk for adverse outcomes. Women in these types of relationships may be less able to negotiate contraceptive use with their partners, placing them at risk for an unintended pregnancy or the contraction of a STD.²⁸

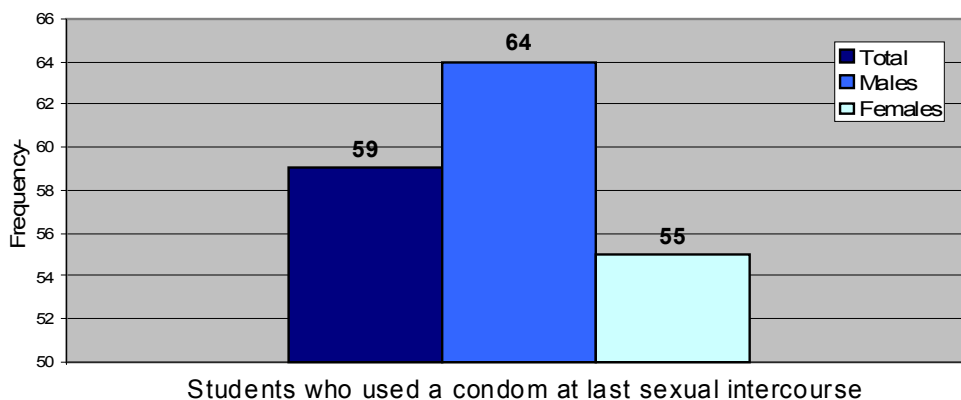
Figure 2.2: Alcohol, Drugs and Sex Among Maine High School Students



Source: Youth Risk Behavior Survey, Maine Department of Education, 2005.

About one-quarter of sexually active Maine high school students reported drinking or using drugs before they last had sexual intercourse. Males reported using alcohol and drugs before they last had sex more often than females. There was no correlation between alcohol or drug use before sex and frequency of condom use (not shown in tables). However, research suggests that teens do more sexually than they plan to when they are under the influence of drugs or alcohol.²⁹

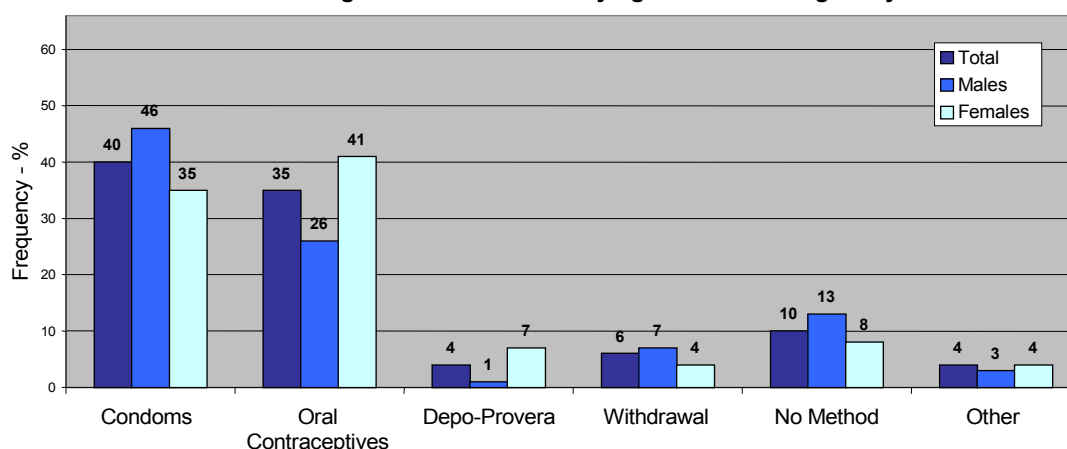
Figure 2.3: Condom Use at Last Sexual Intercourse Among Sexually Active Maine High School Students



Source: Youth Risk Behavior Survey, Maine Department of Education, 2005.

In 2005, almost 60% of sexually active Maine high school students used a condom at last sexual intercourse. Males were more likely than females to report that they or their partner used a condom at last sexual intercourse. The proportion of condom use among sexually active students increased 12% in the last ten years; in 1995, 47% of students reported using a condom at last sexual intercourse, compared to 59% in 2005.

Figure 2.4: The Type of Contraception Used by Sexually Active Maine High School Students Trying to Prevent Pregnancy



Source: Youth Risk Behavior Survey, Maine Department of Education, 2005.

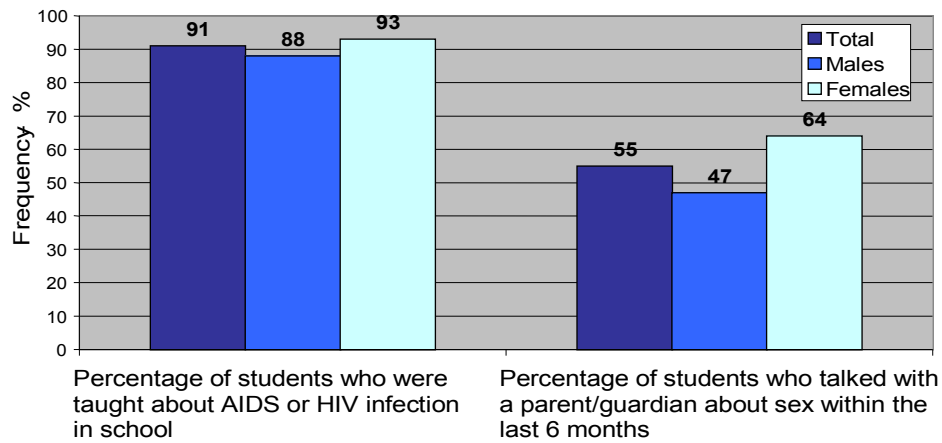
As seen in Figure 2.4, 40% of students reported using condoms to prevent pregnancy. Of the 59% of sexually active Maine students who reported using a condom at last intercourse (as seen in Figure 2.3), 22% *also* used a hormonal form of birth control to prevent pregnancy. This suggests that condoms may have been used as a secondary form of contraception or for STD prevention.

Almost one-half (48%) of sexually active females used a hormonal form of birth control (oral contraceptive or Depo-Provera) to prevent pregnancy during their last sexual intercourse. Furthermore, in 2005, teenagers in Maine used oral contraceptives to prevent pregnancy more than twice as much as girls across the entire nation (41% compared to 18%, respectively).³⁰ Reporting differences also exist between males and females when asked about hormonal forms of contraception; males may not know whether or not girls are actually on hormonal contraceptives and thus, may report at a lower rate than girls.

Also, 16% of Maine students reported using withdrawal or no method of birth control to prevent pregnancy the last time they had sex.

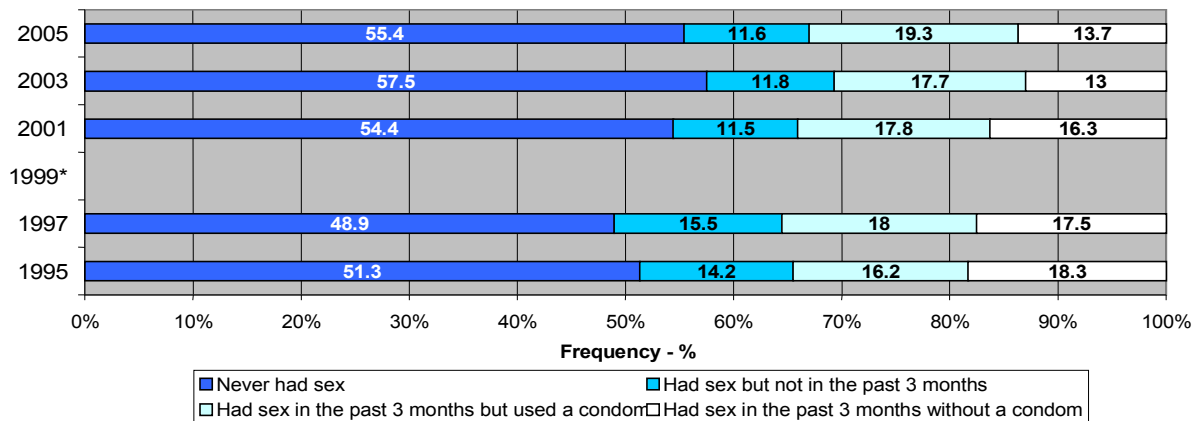
Over 90% of Maine high school students received education on HIV or AIDS infection, whereas 55% of students reported talking to a parent or guardian about sex within the last 6 months. A recent study conducted in Maine by the Department of Health and Human Services found that 7 in 10 parents of teens most likely do not know that their teens have had sex.³¹

Figure 2.5: Sex Education Among Maine High School Students



Source: Youth Risk Behavior Survey, Maine Department of Education, 2005.

Figure 2.6: Sexual Behaviors of Maine High School 1995-2005 Students



Source: Youth Risk Behavior Survey, Maine Department of Education.

* Results not available for 1999; data set was not representative of the entire state.

Figure 2.6 demonstrates sexual behavior trends among all Maine high school students from 1995 to 2005. The number of teens who have ever had sex has decreased since 1995. In 1995, about 49% of students reported having ever had sexual intercourse. In 2005, this number decreased to 45%. Similarly, the number of teens who have had sex but are not currently sexually active (no sex in past 3 months) also decreased over time. Among those who are sexually active, the proportion of those who reported using a condom increased, and the proportion of those having sex without a condom decreased since 1995. The risk of getting a sexually transmitted disease (STD) is substantially increased without condom protection, as is the risk of an unintended pregnancy. Clearly, fewer teens are having sex, and less are sexually active. Those who are sexually active are using condoms more frequently than they did ten years ago.

Sexually Transmitted Diseases: Teens & Young Adults

Each year in the United States, there are approximately 19 million new cases of sexually transmitted diseases (STDs), and almost half of them are among teens and young adults ages 15 to 24.³² STDs are caused by more than 25 infectious organisms that are almost always transmitted from person to person through sexual intercourse by either vaginal or anal intercourse.³³ Though the risk is smaller, STDs can also be transmitted through oral sex. Engaging in sexual activity without the use of condoms to protect against infection increases the risk of contracting an STD. Pregnant women with some STDs may pass their disease to infants during pregnancy, birth or breast-feeding.³⁴

Nationally, more than one in four (29%) sexually active teens contract an STD.³⁵

In Maine, physicians report newly diagnosed cases of four STDs: gonorrhea, syphilis, HIV, and chlamydia to the Maine Center for Disease Control and Prevention (ME CDC). This is in line with national CDC guidelines, and is based on reporting burden and the ability to treat. Nationally, chlamydia and gonorrhea are the two most diagnosed reportable STDs.³⁶ Both are bacterial infections that are easily treated, but they are often difficult to detect in the infected person, as most people do not exhibit obvious symptoms. If left untreated, both chlamydia and gonorrhea can cause infertility in men and women.³⁷

Of the four reportable STDs in Maine, chlamydia, gonorrhea, and HIV are the most prevalent among teens and young adults. Maine's rates of infection of these three reported STDs are considerably lower than the national rates, but teens and young adults infected with STDs, especially chlamydia, represent a marked proportion of the total number of diagnosed cases.³⁸

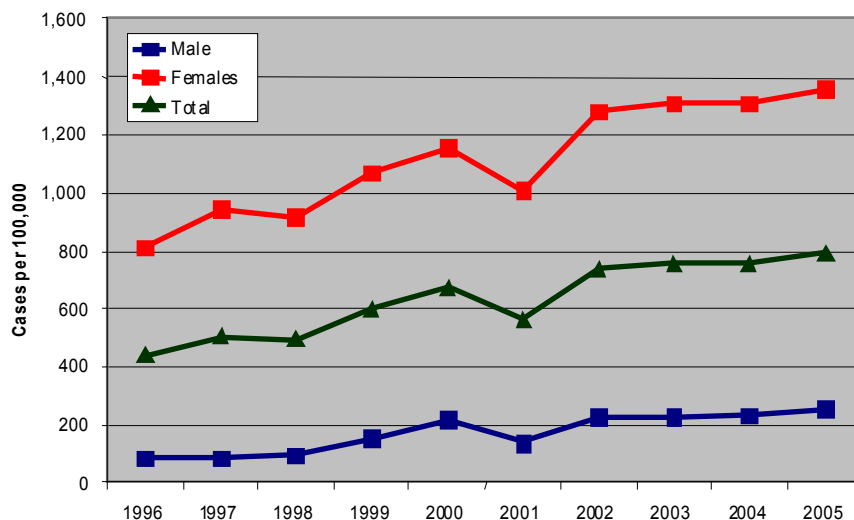
Many other STDs are not required to be reported to ME CDC by those physicians making diagnoses, but these STDs may have as large a prevalence among the population as those that are reported. Human papillomavirus (HPV), herpes, and trichomoniasis are three very common non-reported STDs. Several strains of HPV have been linked to cervical cancer and genital warts. Recently, a new vaccine to prevent women from contracting some types of HPV has been developed and is recommended for girls and young women between the ages of 9 and 26 years. If widely used, the new vaccine could drastically decrease the prevalence of HPV in the population.

HIV/AIDS

It is estimated that just over 1,100 people diagnosed with HIV are living in Maine, and an estimated 350-450 additional individuals may be infected with the HIV virus without knowing it.³⁹ **In 2005, 10% of those living with HIV in Maine were less than 25 years of age when they were first diagnosed with HIV, and 15% were between 26 and 30 years of age.**⁴⁰ Many of those diagnosed in their late 20's [earlier age ranges don't include "early 30's"] may have been infected while in their teens; HIV is often asymptomatic for several years after the initial infection.

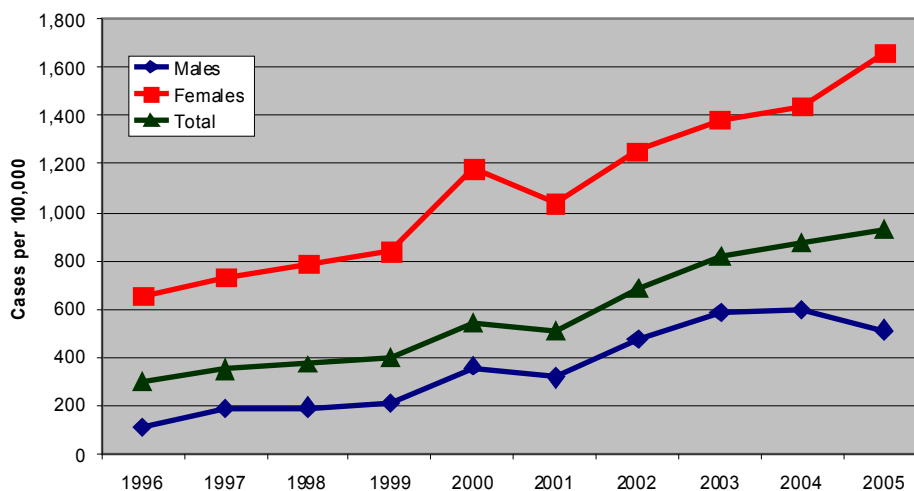
Chlamydia

Figure 3.1 Chlamydia Rates Among Maine Youths 15-19 Years



Source: Maine Department of Health and Human Services, Maine CDC, Division of Disease Control, Program Data 1996-2005.

Figure 3.2: Chlamydia Rates Among Maine Young Adults 20-24 years



Source: Maine Department of Health and Human Services, Maine CDC, Division of Disease Control, Program Data 1996-2005.

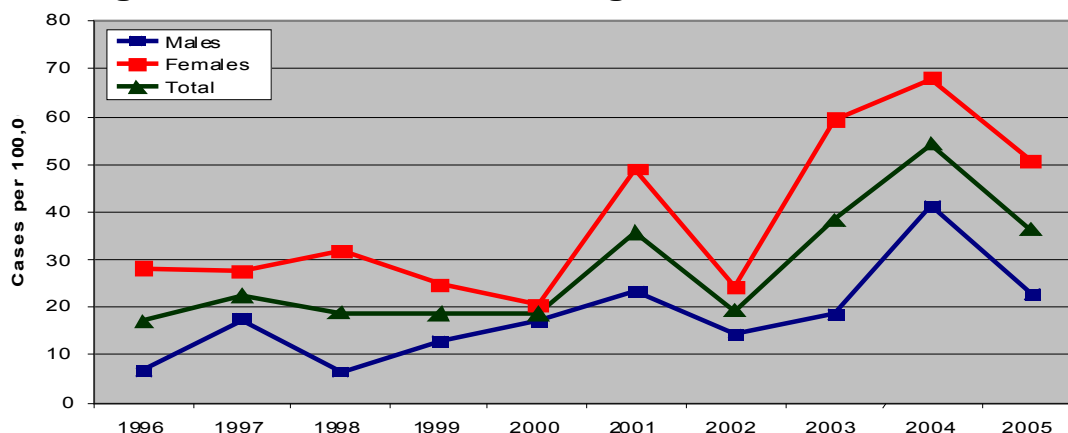
Chlamydia disproportionately affects people less than 25 years, especially females between 20 and 24 years. In 2005, three-quarters of all chlamydia diagnoses in Maine were among people less than 25 years.⁴¹ Except for a small decline in 2001, chlamydia rates among Maine teens and young adults less than 25 years have increased over the past ten years (as seen in Figures 3.1 and 3.2). This may be due in part to recent advances in testing procedures. Today, tests are given more frequently than they were ten years ago, and thus, more people are diagnosed with the disease. Chlamydia is now tested from a urine sample. This is much easier and more accurate than the previous test, which required swab specimens.

National data shows similar trends, with a 14% increase since 2001. Maine Chlamydia rates for both teen and young adults are slightly more than half those of the national, and Maine has the fourth lowest rate in the nation.

In 2005, the rate of chlamydia diagnoses in females ages 15-19 years was more than five times higher than males of the same age. Also, the rate among females 20-24 years was three times higher than males 20-24 years. Although the rates of positive tests for Chlamydia are higher among females than males, it is possible that females do not represent the majority of cases. Females seek medical care more frequently than males because of reproductive health-related issues, and females often exhibit more symptoms than males and are thus, tested more frequently.⁴²

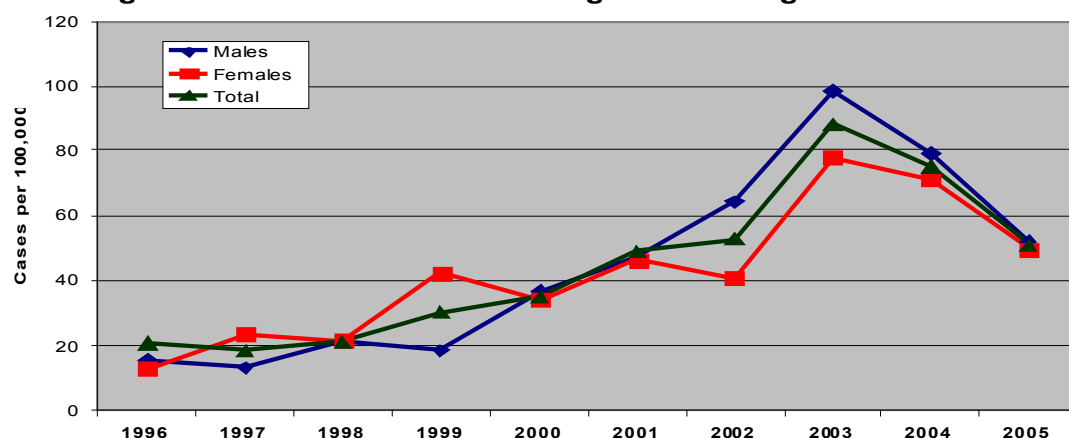
Gonorrhea

Figure 3.3 Gonorrhea Rates Among Maine Youths 15-19 Years



Source: Maine Department of Health and Human Services, Maine CDC, Division of Disease Control, Program Data 1996-2005.

Figure 3.4: Gonorrhea Rates Among Maine Young Adults 20-24 Years



Source: Maine Department of Health and Human Services, Maine CDC, Division of Disease Control, Program Data 1996-2005.

The rates of gonorrhea in Maine have steadily increased since 1996 among females and males ages 15-24 (as seen in Figures 3.3 and 3.4). Compared to 1996, the 2005 gonorrhea rates were

more than three times higher in males and almost two times higher in females. However, the most recent data show the beginning of a decline. National rates have not shown a clear trend in the past five years, and remain almost ten times higher than Maine's rates. Maine has the third lowest rate of Gonorrhea infection in the Nation.

In 2005, approximately one-quarter of gonorrhea diagnoses were among those less than 20 years. Males 20-24 years have the highest rate, and in fact, males comprise about 56% of all gonorrhea diagnoses.⁴³ According to the Maine CDC, HIV, STD, and Viral Hepatitis Program, this is likely due to the relatively large number of diagnoses among males who have sex with males.

Conclusion:

Although teen pregnancy, birth, and abortion rates in Maine are much lower than national rates, teens and young adults still face health risks associated with sexual behaviors. Teen pregnancy, birth, and abortion rates in Maine have declined since the early nineties; however, the proportion of unintended births still remains high among teens and young adults.

In 2005, nearly one-half (45%) of Maine high school students reported having had sex. Unfortunately, many of Maine's sexually active youths did not report using condoms. Many also did not report using a contraceptive to prevent pregnancy when asked. If a significant number of teens are still having unprotected sex, they remain at risk for an unintended pregnancy or the contraction of an STD.

STD rates among teens and young adults, particularly chlamydia and gonorrhea rates, have increased over the last ten years. Fortunately, teens reported delaying sexual activity more frequently than they did ten years ago. However, since STD prevalence has increased substantially within the teen and young adult population, the likeliness of contracting a STD from a peer has also increased.

There is significant evidence proving that teens and young adults in Maine are making wiser decisions concerning their sexual health. The number of teens ever having sex has in fact decreased in the past ten years, and condom use has increased. Continued initiatives by state sponsored agencies are necessary to further decrease pregnancy rates and the incidence of STDs among teens and young adults in order to ensure the best future for all Maine youths. However, specific information on programs and funding trends over time is beyond the scope of this report.

This report focuses on four data sources: Vital records, PRAMS, YRBS, and STD/HIV data. More in-depth analyses including examinations of prenatal care, smoking, alcohol use, pre-term births, insurance status, income, maternal depression, and overweight status using birth certificate and PRAMS data could determine if Maine babies born to teens fare worse than those born to adult women. Examining the use of contraceptives in more depth may result in a better understanding of unintended births.

Additional data sources that might be used in further data reports are Family Planning Association data on the usages of publicly funded services, and MaineCare data, including the amount of funds invested in pregnant teens, with comparisons to the investment in contraception and reproductive health care for this age group.

Finally, it is recommended that the information in this report be updated yearly as new data becomes available. Fact sheets presenting key portions of this data could be used to improve awareness of healthy teen and young adult sexuality.

For More Information:

Maine Teen and Young Adult Health Program

The Teen and Young Adult Health (TYAH) Program focuses on the issues of access to health services, youth development, health education and adolescent sexuality, and provides technical assistance to other programs that wish to involve youth and address adolescent health issues. The Program helps to coordinate services related to adolescent health within state agencies and works to provide funding for reproductive health services and family life education. It also develops policy for school-based health centers and provides technical assistance, advocacy, and support to agencies and organizations working to improve adolescent health. Priority populations include adolescents and low-income women at risk of unintended pregnancy.

Nancy Birkhimer, MPH
Director, Teen and Young Adult Health Program
Maine Center for Disease Control and Prevention
Maine Department of Health and Human Services
nancy.birkhimer@maine.gov
207-287-5361

Acknowledgements:

Maternal and Child Health Bureau, Graduate Student Internship Program

Maine Centers for Disease Control and Prevention

Nancy Birkhimer, MPH
Director, Teen and Young Adult Health Program

Erika Lichter, ScD
Maternal and Child Health Epidemiologist

Mark Griswold, MSc
HIV/AIDS Surveillance Coordinator

Alice Rohman, MLIS
Comprehensive Health Planner II

Kim E. Haggan
Comprehensive Health Planner II

Report prepared by:
Kathryn F. Brown
MCHB Graduate Student Intern
MPH Candidate at Emory University's Rollins School of Public Health

List of Tables and Figures

Teen and Young Adult Sexual Health

Teen Pregnancies and Births: Relative Facts and Figures

Table 1.1: Teen Birth Rankings in the United States – 2003

2	
Figure 1.1: Births Among Adolescent Females, Ages 15-19, Maine and U.S. 1984-2004	
2	
Figure 1.2: Maine Teen Pregnancy Outcomes, Ages 15-19, 1984-2004	3
Table 1.2: 2003 Maine County Level Counts and Rates of Teen Pregnancies for Females, Ages 15-19	3
Figure 1.3: Pregnancies Among Adolescent Females, Ages 15-17, Maine and U.S. 1990-2004	4
Figure 1.4: Pregnancies Among Adolescent Females, Ages 10-14, 15-17, and 18-19, Maine 1995-2004	4
Table 1.3: 2000-2004 Aggregated Teen Pregnancies by Teen Mother's Race and Ethnicity, Ages 15-19	5
Figure 1.5: Pregnancy Rates by Teen Mother's Race, Ages 15-19, Maine 1990-2004	6
Figure 1.6: Pregnancy Rates by Teen Mother's Ethnicity, Ages 15-19, Maine 1990-2004	6
Figure 1.7: Unintended Births Among Maine Female Adolescents and Young Adults	7
<u>Youth Risk Behavior Survey: Teens' Sexual Behavior</u>	

Figure 2.1: Sex and Behavior Among Maine High School Students	8
Figure 2.2: Alcohol, Drugs, and Sex Among Maine High School Students	9
Figure 2.3: Condom Use at Last Sexual Intercourse Among Sexually Active Maine High School Students	9
Figure 2.4: The Type of Contraception Used by Sexually Active Maine High School Students Trying to Prevent Pregnancy	10
Figure 2.5: Sex Education Among Maine High School Students	10
Figure 2.6: Sexual Behaviors of Maine High School Students: 1995-2005	11

Sexually Transmitted Diseases: Teen & Young Adults

Figure 3.1: Chlamydia Rates Among Maine Youths 14-19 Years	14
Figure 3.2: Chlamydia Rates Among Maine Young Adults 20-24 Years	14
Figure 3.3: Gonorrhea Rates Among Maine Youths 14-19 Years	15
Figure 3.4: Gonorrhea Rates Among Maine Young Adults 20-24 Years	15

References

- Ott, M., et al. (2006). "Greater Expectations: Adolescents' Positive Motivations for Sex," *Perspectives on Sexual and Reproductive Health*, 38(2).
- ² National Youth Risk Behavior Survey. (2005). Department of Health and Human Services, Centers for Disease Control and Prevention.
- ³ Singh, S., Darroch, J.E. (2000). Adolescent pregnancy and childbearing: Levels and trends in developed countries. *Family Planning Perspectives*, 32(1): 14-23.
- ⁴ National Campaign to Prevent Teen Pregnancy. (2004). Fact Sheet: How is the 34% statistic calculated?
- ⁵ Feijoo, A. (2001). *Adolescent Sexual Health in Europe and the US – Why the Difference?* Advocates for Youth.
- ⁶ National Survey of Family Growth. (2004). Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2002. *Vital and Health Statistics*, 23(24).
- ⁷ Maynard, R.A. (Ed.). (1996). Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing. New York: The Robin Hood Foundation.
- ⁸ National Campaign to Prevent Teen Pregnancy. (1997). "Whatever Happened to Childhood? The Problem of Teen Pregnancy in the United States."
- ⁹ Martin, J.A., et al. (2002). Births: Final data for 2001, *National Vital Statistics Reports, Division of Vital Statistics, National Center for Health Statistics*, 51(2).
- ¹⁰ Maynard, R.A. (Ed.). (1996). "Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing." New York: The Robin Hood Foundation.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Sanetelli, J. (2004). Can Changes in Sexual Behavior among H.S. Students Explain the Decline in Teen Pregnancy Rates in the 1990s? *Journal of Adolescent Health*, 35(2): 80-90.
- ¹⁴ United States Census.
- ¹⁵ Maine Department of Health & Human Services, Maine CDC, Office of Research, Data, and Vital Statistics.
- ¹⁶ Henshaw, S. (1998). Unintended Pregnancy in the United States, *Family Planning Perspectives*, 30(1), 24-29 & 46
- ¹⁷ Torres, A. and Forrest, J.D. (1988). Why do women have abortions? *Family Planning Perspectives*, 20(4), 169-176.
- ¹⁸ Sanetelli, J. (2003). The Measurement and Meaning of Unintended Pregnancy. *Perspectives on Sexual and Reproductive Health*. 35(2).
- ¹⁹ Finer L.B. et al., (2006). Disparities in unintended pregnancy in the United States, 1994 and 2001, *Perspectives on Sexual and Reproductive Health*, 38(2): 90–96.
- ²⁰ National Survey of Family Growth. (2004). Teenagers in the United States: Sexual Activity, Contraceptive Use, and Childbearing, 2002. *Vital and Health Statistics*, 23(24).
- ²¹ Centers for Disease Control and Prevention, Youth Risk Surveillance System. <http://www.cdc.gov/HealthyYouth/YRBS/index.htm>.
- ²² Human, E., et al. (2006). Trends and Recent Estimates: Sexual Activity Among U.S. Teens. *2006 Child Trends*.
- ²³ Boyer, D and Fine, D. (1992)."Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment." *Family Planning Perspectives*. 24(1).
- ²⁴ Sally Zierler et al, (1991). "Adult Survivors of Child Sexual Abuse and Subsequent Risk of HIV Infection," *American Journal of Public Health*, 81(5).
- ²⁵ Howard, D and Wang, M. (2005). Psychosocial correlates of U.S. adolescents who report a history of forced sexual intercourse. *Journal of Adolescent Health*, 36(5): 372-9.
- ²⁶ Molitor, C. and Tolman, R.M. (1998). Gender and contextual factors in adolescent dating violence. *Violence Against Women*. 4(2): 180-94.
- ²⁷ Ibid.
- ²⁸ Boyer, D and Fine, D. (1992)."Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment." *Family Planning Perspectives*. 24(1).
- ²⁹ Kaiser Family Foundation. (2003). National Survey of Adolescents and Young Adults: Sexual Health Knowledge, Attitudes and Behaviors.
- ³⁰ Centers for Disease Control and Prevention, National Youth Risk Behavior Survey: 1991-2005. *Trends in the Prevalence of Risk Behaviors*. http://www.cdc.gov/healthyyouth/yrbs/pdf/trends/2005_YRBS_Sexual_Behaviors.pdf
- ³¹ Parents Matter!: Maine Facts about Teens. Maine Department of Health and Human Services. www.parentsmatter.org
- ³² Weinstock H, et al. (2004). Sexually transmitted diseases among American youth: Incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health*, 36(1): 6-10.
- ³³ Centers for Disease Control and Prevention. (2000). Tracking the Hidden Epidemics: Trends in STDs in the U.S.
- ³⁴ Centers for Disease Control and Prevention. (2002). "Sexually transmitted diseases treatment guidelines 2002." *MMWR*, 51, RR-6.
- ³⁵ Kaiser Family Foundation and Seventeen, SexSmarts: Sexual Health Care and Counsel, 2001.
- ³⁶ Center for Disease Control and Prevention. (2004). STD Surveillance 2004: Trends in Reportable Sexually Transmitted Diseases in the United States.
- ³⁷ Aral, S. (2001). Sexually transmitted diseases: magnitude, determinants and consequences. *International Journal of STD and AIDS*, 4: 211-5.
- ³⁸ Maine Department of Health & Human Services, Maine CDC, HIV, STD, and Viral Hepatitis Program.
- ³⁹ Ibid.
- ⁴⁰ Ibid.
- ⁴¹ Ibid.
- ⁴² Ibid.
- ⁴³ Ibid.